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PUBLIC HEALTH REPORTS.

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FLEAS AS PLAGUE CARRIERS BETWEEN RATS AND GROUND SQUIRRELS.

By GEORGE W. MCCOY, Passed Assistant Surgeon, United States Public Health and Marine-Hospital Service, San Francisco, Cal.

It has been shown in a previous note[a] that plague may be carried from a squirrel to guinea pigs and from a squirrel to a squirrel by squirrel fleas. In the present experiments white rats, rat fleas, ground squirrels, and ground squirrel fleas were utilized.

One of the first problems that presented itself to those who were called upon to deal with the situation created by plague among ground squirrels was the question of its transmissibility from squirrels to rats, and vice versa. Fleas, having been proven by several observers to be the means whereby the infection is transmitted among rats, were naturally thought of in connection with the question at hand, and accordingly experiments were carried out to demonstrate whether squirrel fleas could carry the disease to rats and whether rat fleas could carry it to squirrels.

FROM A SQUIRREL TO RATS.

A California ground squirrel (*Citellus beecheyi*) was inoculated cutaneously (vaccinated) with the spleen of a guinea pig dead on the fifth day after inoculation from a naturally infected ground squirrel. Three days after the inoculation 220 squirrel fleas, *Ceratophyllus acutus Baker* (the common squirrel flea of California), were placed in the cage with the squirrel which had sickened. The squirrel died on the fifth day after the inoculation, i. e., two days after the fleas were placed in the cage. Forty-five fleas were removed from the body of the dead squirrel. These were placed in a clean cage with three white rats. Two of the white rats died of acute plague on the sixth day. The other white rat was killed on the eighth day, but no lesions were found.

FROM RAT TO SQUIRREL.

A white rat was inoculated cutaneously with the bubo of a white rat that had died of acute plague. Four days after the inoculation of the rat 107 rat fleas, *Ceratophyllus fasciatus Bosc.* (the common rat flea of California) were placed in the cage with the rat. This white rat died on the fifth day, and at autopsy presented the usual lesions of acute plague. After the death of the rat 50 of the fleas were removed from the body and placed in a clean cage with a healthy ground squirrel. This squirrel died on the tenth day and at autopsy presented the usual lesions of plague.

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[a] Public Health Reports, Vol. XXV, No. 15, p. 465, 1910.

These experiments show how readily plague might be carried from rats to squirrels and from squirrels to rats by means of fleas.

Until further experimental work has been done, it would be unwise to assume that the infection is transmitted in nature in this manner.

HEALTH OF SCHOOL CHILDREN AT LEEDS, ENGLAND.

The following was received from Consul Chase through the Department of State, under date of April 30:

A medical inspection of a number of the school children of Leeds has just been made, the first under an order of the Government, and a summary of the report is published.

There are 113 elementary schools with 272 departments and 79,441 children enrolled, the entrance age being 5 years. Of this number, 16,660 (8,521 boys and 8,139 girls) have been examined by the medical authorities.

For the purpose of record the schools were divided into 5 classes which, with the number examined in each class, are as follows: Poor 4,065, ordinary 7,543, better class 2,817, suburban 1,677. The report gives 9,261 or 55.6 per cent with defective teeth or dental caries; 1,548 or 9.3 per cent as cases of subnormal nutrition; 1,570 or 10.5 per cent with enlarged tonsils or adenoids; 262 or 1.3 per cent with ear diseases; 956 or 5.7 per cent have rickets. One per cent of those examined have nervous diseases and one-tenth of 1 per cent were pronounced mentally defective, but the explanation of this low rate is that the city has 4 special schools for the education of the mentally defective children not included in the inspection. Two thousand nine hundred and twenty-three, or 17.5 per cent, are reported as "dirty or verminous," and assuming the same ratio of all enrolled, this would amount to almost 13,000 children. After notice to parents this condition was remedied in all but 44 children, who have been directed excluded, action to be taken against their parents. Girls are affected in this way in the proportion of 4 to 1 as to boys. Ringworm is given as the cause of the absence of 200 per week, and 0.5 per cent are excluded on that account. Three hundred and four cases of tuberculosis were noted, 175 in boys and 129 in girls.

Of the total number of scholars, 8,657 have been under medical treatment during the past year, and the returns of the last six months of the year show an average of 1,895 children absent daily on account of sickness.

In all, 16,305 notices were issued to parents as to various diseases in their children, and 53 per cent of those reported seem to have been treated.

The regulations provide for 4 examinations of each scholar, and a record card of each to be kept and ultimately filed in the education